

CLAIMS

What is claimed is:

1 1. A beamblock tray for use with multiple defining heads in a medical linear
2 accelerator, the beamblock tray comprising:

3 a tray portion; and
4 a plurality of coded connectors coupled to the tray portion, wherein the tray portion
5 (208) can be inserted into a defining head in a plurality of directions based upon the
6 plurality of coded connectors.

1 2. The tray of claim 1 which includes a flange which surrounds the tray portion
2 and is coupled between the plurality of coded connectors and the tray portion.

1 3. The tray of claim 1 wherein the plurality of coded connectors comprise first
2 and second coded connectors.

1 4. The tray of claim 3 wherein the first coded connector is located along a
2 bottom edge of the tray portion and the second coded connector is located along a left edge
3 of the tray portion.

1 5. The tray of claim 1 wherein each of the plurality of coded connectors
2 comprises a resistor pair.

1 6. A beamblock tray for use with multiple defining heads in a medical linear

2 accelerator, the beamblock tray comprising:

3 a tray portion ; and

4 first and second coded connectors coupled to the tray portion, wherein the tray
5 portion can be inserted into a defining head in a plurality of directions based upon the first
6 and second coded connectors, and a flange which surrounds the tray portion is coupled
7 between the first and second coded connectors and the tray portion.

1 7. The tray of claim 6 wherein the first coded connector is located along a
2 bottom edge of the tray portion and the second coded connector is located along a left edge
3 of the tray portion.

1 8. The tray of claim 7 wherein each of the first and second coded connectors
2 comprises a resistor pair.

1 9. A medical linear accelerator comprising:
2 a support gantry coupled to the control console in the medical linear accelerator;
3 a defining head coupled to the support gantry; and
4 a beamblock tray for use with the defining head, the beam block tray comprising a
5 tray portion and a plurality of coded connectors coupled to the tray portion, wherein the tray
6 portion can be inserted into the defining head in a plurality of directions based upon the
7 plurality of coded connectors.

1 10. The medical linear accelerator of claim 8 which includes a flange which
2 surrounds the tray portion and is coupled between the plurality of coded connectors and the

tray portion.

11. The medical linear accelerator of claim 9 wherein the plurality of coded connectors comprise first and second coded connectors.

12. The medical linear accelerator of claim 11 wherein the first coded connector is located along a bottom edge of the tray portion and the second coded connector is located along a left edge of the tray portion.

13. The medical linear accelerator of claim 9 wherein each of the plurality of coded connectors comprises a resistor pair.

14. A method for determining if a beamblock tray is oriented correctly in a defining head of a medical linear accelerator, the method comprising the steps of:

- (a) determining if a coded connector on the beamblock tray is recognized;
 - (b) identifying a mismatch if the coded connector is not recognized; and
 - (c) preventing radiation from being delivered by the medical linear accelerator
- (10).

15. The method of claim 14 which includes the step of alerting a radiation therapist if radiation is not delivered.

16. A medical linear accelerator comprising:
a support gantry coupled to the control console in a medical linear

3 accelerator (10);

4 a defining head coupled to the support gantry; and

5 a beam block tray for use with the defining head, the beamblock tray
6 comprising a tray portion and first and second coded connectors coupled to the tray portion,
7 wherein the tray portion can be inserted into a defining head in a plurality of directions
8 based upon the first and second coded connectors, and a flange which surrounds the tray
9 portion is coupled between the first and second coded connectors and the tray portion.

1 17. The medical linear accelerator of claim 16 wherein the first coded connector
2 is located along a bottom edge of the tray portion and the second coded connector is located
3 along a left edge of the tray portion.

1 18. The medical linear accelerator of claim 16 wherein the first and second
2 coded connectors comprises a resistor pair.

1 19. A computer readable medium containing program instructions for
2 determining if a beamblock tray is oriented correctly in a defining head of a medical linear
3 accelerator, the program instructions for:

- 4 (a) determining if a coded connector on the beamblock tray is
5 recognized; and
6 (b) identifying a mismatch if the coded connector is not recognized; and
7 (c) preventing radiation from being delivered by the medical linear
8 accelerator.

- 1 20. The computer readable medium of claim 19 which includes program
- 2 instructions for (d) alerting a radiation therapist if radiation is not delivered.

Approved for Release